AFSC 1A3X1
AIRBORNE COMMUNICATIONS SYSTEMS

CAREER FIELD
EDUCATION AND TRAINING PLAN
(CFETP)

CAREER FIELD EDUCATION AND TRAINING PLAN
AIRBORNE COMMUNICATIONS SYSTEMS
AFSC 1A3X1

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Part I

Preface

1. This Career Field Education and Training Plan (CFETP) is a comprehensive education and training document that identifies life-cycle education/training requirements, training support resources, and minimum core task requirements for this specialty. The CFETP will provide personnel a clear career path to success and instill rigor in all aspects of career field training.

2. The CFETP consists of two parts; both of which are used by management to plan, manage, and control training within the career field.

2.1. Part I provides information necessary for overall management of the specialty. Section A explains how everyone will use the plan; Section B identifies career progression information, duties and responsibilities, training strategies, and career field path; Section C associates each level with specialty qualifications (knowledge, education, training, and other); Section D indicates resource constraints. Some examples are funds, manpower, equipment, and facilities. Note: AFMAN 36-2108, *Airman Classification,* contains the specialty descriptions.

2.2. Part II includes the following: Section A identifies the Specialty Training Standard (STS) and includes duties, tasks, technical references to support training, Air Education and Training Command (AETC) conducted training, wartime course, core task, and correspondence course requirements. Section B contains the course objective list and training standards supervisors will use to determine if airmen satisfied training requirements. Section C identifies available training support materials. An example is a qualification training package (QTP) which may be developed to support proficiency training QTPs identified in this section have been developed to support upgrade/qualification training. These packages are indexed in AFIND 8, *Numerical Index of Specialized Educational Training Publications.* Section D identifies a training course index that is used to determine resources available to support training. Included here are both mandatory and optional courses. Section E identifies MAJCOM unique training requirements.

3. This CFETP is designed to ensure individuals in AFSC 1A3X1 receive comprehensive and effective training at the appropriate phases of their career. At unit level, supervisors and trainers use Part II to identify, plan, and conduct training commensurate with the overall goals of this plan.

ABBREVIATIONS/TERMS EXPLAINED

Advanced Training. Formal course which provides individuals who are qualified in one or more positions of their Air Force Specialty (AFS) with additional skills/knowledge to enhance their expertise in the career field. Training is for selected career airmen at the advanced level of the AFS.

Air Force Career Field Manager (AFCFM). Individuals appointed by Air Staff DCS's to manage education, training, and resources for a specific career field(s).

Basic Aircraft Qualification (BAQ).   An aircrew member who has satisfactorily completed initial qualification training and is qualified to perform aircrew duties in the unit aircraft.

Basic Mission Capable (BMC). An aircrew member who has satisfactorily completed mission qualification training, does not maintain MR/CMR status, but maintains familiarization in the command or unit operational mission.

Career Development Course (CDC). A self-paced course designed to upgrade a skill level.

Career Field Education and Training Plan (CFETP). A CFETP is a comprehensive, multipurpose document encapsulating the entire spectrum of training for a specialty. It outlines a logical growth path, including training resources, and is designed to eliminate duplication and make training identifiable and budget defensible.

Combat Mission Ready (CMR). An aircrew member who has satisfactorily completed mission qualification training and maintains qualification and proficiency in the command or unit operational mission.

Continuation Training (CT). Training for aircrew members already qualified in their respective aircrew position to maintain their assigned level of proficiency. CT is designed to progressively improve basic qualified, mission ready, mission capable, and aircrew members' ability to perform the units' mission.

Core Task. A task AFCFMs identify as essential qualification requirements for upgrade within an AFS. These tasks exemplify the essence of the career field, the foundation. Failure to complete core tasks precludes upgrade. Core tasks not applicable to MAJCOMs are waiverable by MAJCOM functional managers.

Course Objective Lists (COL). A publication, derived from our initial skills course training standard, identifying the tasks and knowledge requirements, and respective standards provided to achieve a 3-skill level in this career field. Supervisors use the COL to conduct graduate evaluations in accordance with AFI 36-2201, *Developing, Managing, and Conducting Military Training Programs*.

Enlisted Aircrew Undergraduate Course (EAUC). A course designed to screen candidates for the rigors of enlisted aircrew duties prior to spending expensive follow-on training resources.

Enlisted Specialty Training (EST). A mix of formal training (technical school) and informal training (on-the-job) to qualify and upgrade airmen in each skill-level of a specialty.

Exportable Training. Additional training via computer assisted, paper text, interactive video, or other necessary means to supplement training.

Functional Manager. Individuals appointed by MAJCOMs to manage education, training, and resources for a specific career field(s) for that MAJCOM.

Initial Qualification Training (IQT). Training necessary to initially qualify a crew member in a basic crew position and flying duties without regard to the unit's operational mission. This is the minimum requirement for BQ.

Initial Skills Training. A formal school course that results in award of a 3-skill level AFSC.

Instructional Systems Development (ISD). A deliberate and orderly, but flexible process for planning, developing, validating, implementing and reviewing instructional programs. It ensures that personnel are taught, in a cost efficient way, the knowledge and skills for successful job performance.

Major Weapons Systems (MWS). All applicable airborne platforms with a crew complement including at least one 1A3X1.

Mission Capable (MC). A status of an aircrew member who has satisfactorily completed mission qualification training but who does not maintain mission ready status.

Mission Qualification Training (MQT). Training necessary to qualify a crew member in a specific aircrew position to perform the command's or unit's operational mission. MQT completion is a prerequisite for mission ready status.

Mission Ready (MR). See **Combat Mission Ready (CMR)**

On-the-Job Training. A delivery method used to certify personnel in both upgrade (skill level award) and job qualification (duty position certification) training. It is hands-on, over-the-shoulder training conducted at the duty location.

Practicum. OJT program for instructor or evaluator upgrade.

Resource Constraints. Resource deficiencies, such as money, facilities, time, manpower, and equipment that preclude desired training from being accomplished.

Specialized Training Package and COMSEC Qualification Training Package. A composite of lesson plans, test material, instructions, policy, doctrine, and procedures necessary to conduct training. These packages are prepared by AETC, approved by the National Security Agency (NSA), and administered by qualified COMSEC maintenance personnel.

Specialty Training Standard (STS). An Air Force publication that describes an Air Force Specialty in terms of tasks and knowledge which an airman in that specialty may be expected to perform or to know on the job. It further serves as a contract between AETC and the functional user to show which of the overall training requirements for an AFSC are taught in formal schools and exportable courses.

Standard. An exact value, a physical entity, or abstract concept, established and defined by authority, custom, or common consent to serve as a reference, model, or rule in measuring quantities or qualities, establishing practices or procedures, or evaluating results. A fixed quantity or quality.

Total Force. All collective Air Force components (active, reserve, guard, and civilian elements) of the United States Air Force.

Upgrade Training (UGT). Training that leads to the award of a higher skill level in an Air Force Specialty.

Utilization and Training Workshop (U&TW). A forum of the AFCFM, MAJCOM functional managers (MFM), Subject Matter Experts (SME), and AETC training personnel that determines career ladder training requirements.

War Task. Tasks that AFS functional managers identify as minimum qualification requirements trained at the in-resident wartime course.

Weapons System Training Package (WSTP). An instructional course which includes IQT, MQT, and CT designed for use at the unit to qualify or aid qualification in a duty position, program, or on a piece of equipment. The WSTP may be printed, computer based, flying, simulator, or other audio visual material.

Section A - General Information

1. **Purpose.** This CFETP provides information necessary for the Air Force Career Field Manager (AFCFM), MAJCOM functional managers (MFMs), commanders, training managers, supervisors, and trainers to plan, develop, manage, and conduct an effective and efficient career field training program. The plan outlines the training that individuals must receive in order to develop and progress throughout their career. For the purpose of this plan, training is divided into four areas: initial skills, upgrade training (UGT), qualification training (QT), and continuation training (CT). Initial skills training is the Air Force Specialty specific training an individual receives upon entry into the Air Force or upon retraining into this specialty for award of the 3-skill level. Upgrade training identifies the mandatory courses, task qualification requirements, and correspondence course completion required for award of the 3-, 5-, 7-, and 9-skill levels. Qualification training is actual hands-on task performance training designed to qualify an airman in a specific duty position. This training program occurs both during and after the upgrade training process. It is designed to provide the performance skills/knowledge training required for the job. Continuation training is additional training either in-residence or exportable advanced training courses, or on-the-job training, provided to personnel to increase their skills and knowledge beyond the minimum required. The CFETP has several purposes, some are:

1.1. Serves as a management tool to plan, manage, conduct, and evaluate a career field training program. Also, it is used to help supervisors identify training at the appropriate point in an individual's career.

1.2. Identifies task and knowledge training requirements for each skill level in this specialty and recommends training and education throughout each phase of an individual's career.

1.3. Lists training courses available in the specialty, identifies sources of training, and the training medium.

1.4. Identifies major resource constraints which impact full implementation of the desired career field training program.

2. **Uses.** The plan will be used by MFMs and supervisors at all levels to ensure a comprehensive and cohesive training programs are available and/or instituted for each individual in the specialty.

2.1. AETC training personnel will develop/revise formal resident, non-resident, and exportable training based on requirements established by the user and documented in Part II of the CFETP. They will also work with the AFCFM to develop acquisition strategies for obtaining resources needed to provide the identified training.

2.2. MFMs will ensure their training programs complement the CFETP mandatory initial and upgrade skills requirements. Identified requirements can be satisfied by OJT, resident training, contract training, or exportable courses. MAJCOM-developed training to support this AFSC must be identified for inclusion in this plan and must not duplicate available training resources.

2.3. Each individual will complete the mandatory training requirements specified in this plan. The list of courses in Part II, will be used as a reference to support training.

2.4. Qualification training packages (QTP) are developed by AETC, MAJCOM functional managers, and/or unit training managers. Unit developed QTPs will be provided to the parent MAJCOM and included in the CFETP.

2.5. Personnel in AFSC 1AXXX are exempt from maintaining OJT Training Folders (AF Form 623). All core tasks identified in this document are satisfied in IQT, MQT, and CT. That training is certified via AF Form 8 by trained instructors and evaluators. Certification of the Form 8 eliminates the requirement to document STS items in this CFETP.

3. Coordination and Approval. The AFCFM is approval authority. MAJCOM representatives and AETC training personnel will identify and coordinate on the career field training requirements. The AETC training manager for this specialty will initiate an annual review of this document by AETC and MFMs to ensure currency and accuracy. Using the list of courses in Part II, they will eliminate duplicate training. Applicable inputs/changes to this CFETP will be routed to the 332 TRS/UNAA, 613 Hangar Road, Keesler AFB MS, 39534-2237.

Section B - Career Progression And Information

4. Specialty Description.

4.1. Specialty Summary. Performs aircrew functions on various airborne platforms. Operates, inspects, troubleshoots, and performs maintenance on airborne communications and electronic systems. Performs preflight and postflight inspections of airborne communications and electronic systems. Supervises and instructs communications and electronic systems personnel in operation, maintenance, repair, and test procedures.

4.2. Duties and Responsibilities.

4.2.1. Performs preflight, in-flight, and postflight inspections. Analyzes and monitors airborne communications and electronic equipment for proper operation. Establishes and maintains voice and data communications circuits/links. Operates aircraft emergency systems.

4.2.2. Performs and supervises airborne equipment operations and maintenance. Initializes, operates, monitors, tests, troubleshoots, isolates malfunctions, and repairs radio, audio distribution, switching, data, cryptologic, anti-jam, satellite communications, recording and playback, multiplex, electronic warfare (EW), intercept, analysis, recording, broadcasting, imaging , and computer equipment. Monitors displays and indicators for equipment status using technical orders and manuals, test equipment, software diagnostics, voltage checks, resistance measurements, waveform observations, or other tests. Installs, operates, and monitors special support systems.

4.2.3. Performs aircraft exterior scanner duties. Monitors aircraft engine, propeller, hydraulic, pneumatic and flight controls systems during engine start.

4.2.4. Plans and organizes mission materials. Coordinates information to determine aircraft status and establish operational links. Adheres to communication security (COMSEC) procedures.

5. **Skill/Career Progression.** Adequate training and timely progression from the apprentice to the superintendent skill level play an extremely important role in the Air Force's ability to accomplish its mission. Therefore, it is essential that everyone involved in training do their part to plan, develop, manage, conduct, and evaluate an effective and efficient training program. The guidance provided in this part of the CFETP will ensure individuals receive viable training at the appropriate points in their career. The following narrative and the AFSC 1A3X1 career field flow charts identify the training career path. They define the training required in an individual's career.

5.1. **Apprentice (3) Level** Training. Initial skills training in this specialty consists of the tasks and knowledge training provided in the 3-skill level resident course (1A331) located at Keesler, AFB MS. Tasks and knowledge training requirements are identified in the specialty training standard, at Part II, Section A. Individuals must complete the initial skills course to be awarded AFSC 1A331.

5.2. **Journeyman (5) Level** Training. Upgrade training to the 5-skill level in this specialty consists of task and knowledge training provided in Career Development Course (CDC) 1A351, and hold appropriate grade.

5.3. **Craftsman (7) Level** Training. Upgrade training to the 7-skill level in this specialty consists of holding the grade of SSgt and 18 months of experience.

5.4. **Superintendent (9) Level** Training. Must be a SMSgt and have completed SNCOA or its equivalent.

6. **Training Decisions.** The CFETP uses a building block approach (simple to complex) to encompass the entire spectrum of training requirements for the Airborne Communications And Electronics Specialty career field. This CFETP was developed to include life-cycle (day one through retirement) training requirements for this specialty. The spectrum includes a strategy for when, where, and how to meet the training requirements. The strategy must be apparent and affordable to reduce duplication of training and eliminate a disjointed approach to training.

6.1. **Initial Skills Training.** The initial skills training will be revised to provide training needed to prepare graduates for Airborne Communications and Electronics Specialty related positions.

6.2. **Five Level Upgrade Training.** The AFSC 1A351 CDC provides required training for upgrade in the Airborne Communications And Electronics Specialty related positions.

6.3. **Seven Level Upgrade Training.** The CSAF has approved a variance, eliminating the requirement for in-residence 7-level training for all 1AXXX (Air Operations Career Field) personnel.

7. **Community College of the Air Force (CCAF) Academic Programs.** See our web site for program details regarding the Associate of Applied Science degree at http://www.au.af.mil/au/ccaf"".

7.1. Enrollment in CCAF occurs upon completion of basic military training. CCAF provides the opportunity for all enlisted members to obtain an Associate in Applied Science degree. The degree must be completed before student separates from the Air Force, retires, or commissioned as an officer.

7.2. Occupational Instructor Certification. The College offers the Occupational Instructor Certification to instructors teaching full time in a CCAF affiliated school. To qualify, instructors must complete an instructor course, a Teaching Practicum, have two years teaching experience, hold an associate or higher degree, and be recommended by their commander/commandant.

7.3. The Avionic Systems Technology program applies to AFSC 1A3XX career field. The 2002 catalog update will change this to Airborne Information Systems in keeping with changes in the AFSC.

7.3.1. **Degree Requirements**: You must hold the 5-skill level to graduate in all programs.

Subject Area	Semester Hrs
Technical Education	24
Leadership, Management, and Military Studies	6
Physical Education	4
General Education	15
Program Elective	15
Total	**64**

7.3.2. Technical Education (24 Semester Hours): A minimum of 12 semester hours of Technical Core subjects/courses must be applied. The remaining semester hours will be applied to fulfill Technical Education and Program Elective requirements..

7.3.3. Leadership, Management, and Military Studies (6 Semester Hours): Professional Military Education and/or civilian management courses. See *CCAF General Catalog* for application of civilian management courses.

7.3.4. Physical Education (4 Semester Hours): Satisfied upon completion of basic military training.

7.3.5. General Education (15 Semester Hours): Courses must meet the Criteria for Application of Courses to the General Education Requirement and be in agreement with the definitions of Applicable General Education subjects/courses as outlined in the *CCAF General Catalog*.

7.6.6. Program Elective: Satisfied with applicable Technical Education, Leadership, Management, and Military Studies; or General Education subjects/courses.

8. Career Field Flow Charts.

Figure 1. Enlisted Career Path

Figure 2. 1A3X1 Training Flow

Figure 3. EC-130 (ABCCC) Training Path

Figure 4. Special Operations / Rescue (MC-130E/P & HC-130P) Training Path

Figure 5. E-4B (NAOC) Training Path

Figure 6. E-3 (AWACES) Training Path

Figure 7. Special Air Mission (SAM) Training Path

Figure 8. E-8 (Joint STARS) Training Path

Figure 9. Assignment Locations

Enlisted Career Path

Education and Training Requirements	GRADE REQUIREMENTS				
	Rank	Earliest Sew-on	Air Force Average	1A3X1 Average	High Year of Tenure (HYT)
Basic Military Training School					
Apprentice Technical School **(3-Skill Level)**	Amn A1C	6 months 16 months			
Upgrade To Journeyman **(5-Skill Level)** - Complete 3 months duty position and apprentice experience before beginning journeyman training. - Minimum 15 months on-the-job training. - Complete appropriate CDC.	SrA	28 months	3 years	3 years	10 years
Airman Leadership School (ALS) - Must be a SrA with 48 months time in service or be a SSgt selectee. - Resident graduation is a prerequisite for SSgt sew-on (Active Duty Only).					
Upgrade To Craftsman (7-Skill Level) - Minimum rank of SSgt select - 18 months OJT - Formal advanced skill training. - Must be 7-skill level for TSgt sew-on.	SSgt	3 years	5.4 years	4.6 years	20 years
Noncommissioned Officer Academy (NCOA) - Must be a TSgt or TSgt selectee. - Resident graduation is a prerequisite for MSgt sew-on (Active Duty Only).	TSgt MSgt	5 years 8 years	13.9 years 16.7 years	13.2 years 17.6 years	20 years 24 years
USAF Senior NCO Academy (SNCOA) - Must be a SMSgt or SMSgt selectee. - Resident graduation is a prerequisite for CMSgt sew-on (Active Duty Only).	SMSgt	11 years	19.3 years	19.5 years	26 years
Upgrade To Superintendent (9-Skill Level) - Minimum rank of SMSgt. - Must be a resident graduate of SNCOA (Active Duty Only).	CMSgt	14 years	21.3 years	22.1 years	30 years
Data current as of Jan 01					

Figure 1

1A3x1 Training Flow

```
                          ┌──────────────┐
                          │   Retrainee  │
                          └──────┬───────┘
                                 │
                                 ▼
  ╭──────────╮    ┌──────────────────┐   ┌──────────────┐   ┌──────────────────┐
  │  Basic   │    │ Enlisted         │   │  Survival    │   │  ACES Course     │
  │ Military │────│ Aircrew          │───│  Training    │───│  Airborne        │
  │ Training │    │ Undergraduate    │   │  Combat      │   │  Communications  │
  ╰──────────╯    │ Course           │   │ (S-V80  17 Days)│ │  Specialty      │
                  │ (w/Alt Chamber)  │   │              │   │                  │
                  │ (14 Days)        │   │  Water       │   │  (65 Days)       │
                  └──────────────────┘   └──────────────┘   └──────────────────┘

   Lackland        Sheppard AFB TX      Fairchild AFB WA    Keesler AFB MS
                                        NAS Pensacola FL

  ┌────────────────────────────────────────────────────────────────┐
  │            Weapons Systems Training                            │
  │                                                                │
  │   E-3, E-4, E-8, EC/HC/MC-130, EC/RC/OC-135,                  │
  │             Special Air Mission                               │
  └────────────────────────────────────────────────────────────────┘
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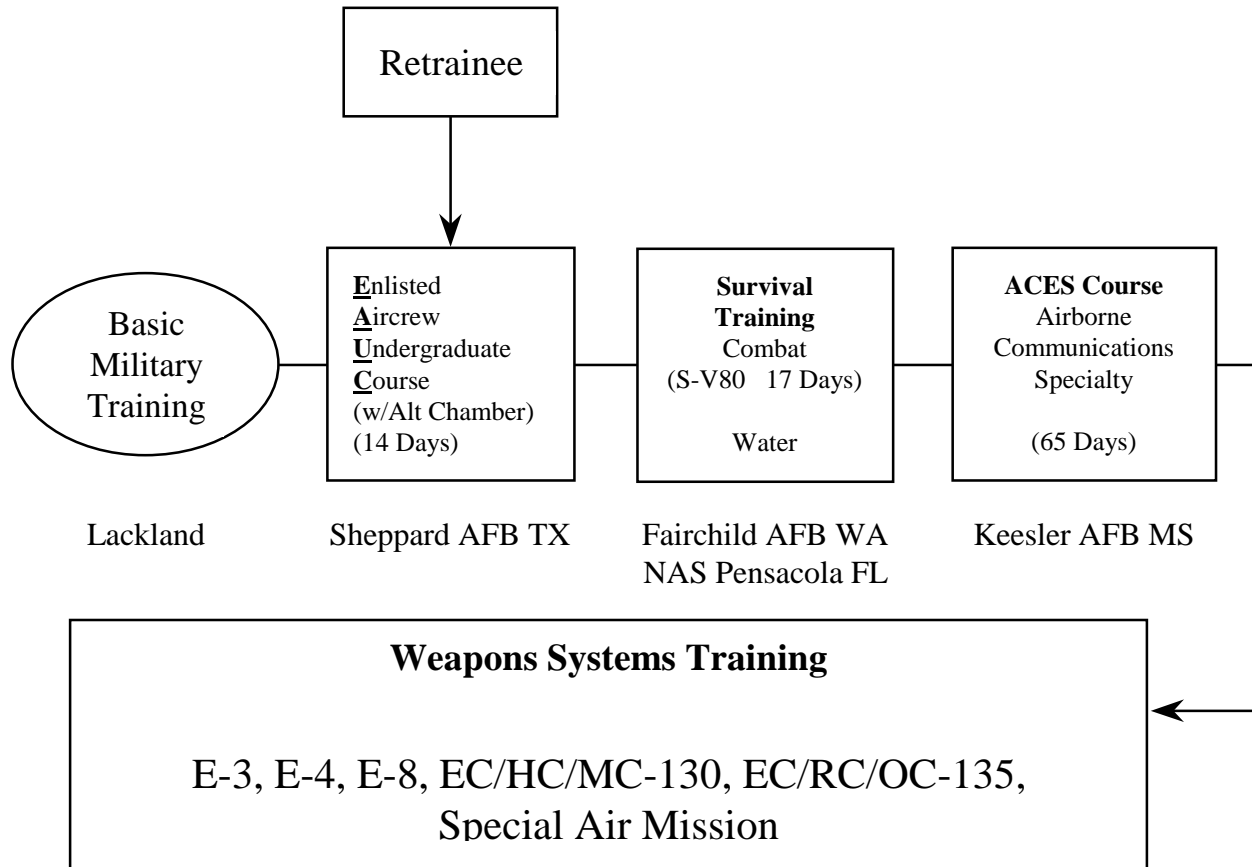
8.1. The flow outlined in figure 1 (above) represents the formal training courses required for personnel entering and becoming fully qualified in the AIRBORNE COMMUNICATIONS AND ELECTRONICS SPECIALTY. The locations, course lengths, and titles are
subject to change. Changes will be updated in the Education Training Course Announcement by the course owner.

8.1.1. The course flow has been developed and agreed upon by the MAJCOM functional managers to minimize days students are awaiting training and to ensure survival training is received prior to AFSC award--minimizing the impact of not having the prerequisites completed before entering weapons system training.

8.1.2. Personnel graduating from the Keesler course are awarded AFSC 1A331 and are authorized to wear the Basic Aircrew Member Badge. The badge is not awarded permanently until the individual completes Initial Qualification Training at any of the weapons systems qualification courses. Failure to complete IQT is authority for supervisors to recommend revocation of wear of the aircrew member badge.

Figure 2

EC-130 (ABCCC) Training Path

```
┌─────────────────────────────┐
│         Feed from           │
│     any weapons system      │
│       or Tech School        │
└─────────────────────────────┘
              │
┌─────────────────────────────┐
│    Comm Systems Operator    │
│       Initial / Mission     │
│        Qual Training        │
└─────────────────────────────┘
              │
┌─────────────────────────────┐
│      1Year Experience       │
│            and              │
│      150 Flying Hours       │
└─────────────────────────────┘
              │
┌─────────────────────────────┐
│    Airborne Maintenance     │
│          Technician         │
│       Upgrade Training      │
└─────────────────────────────┘
              │
┌─────────────────────────────┐
│        Instructor /         │
│          Evaluator          │
│           Upgrade           │
└─────────────────────────────┘
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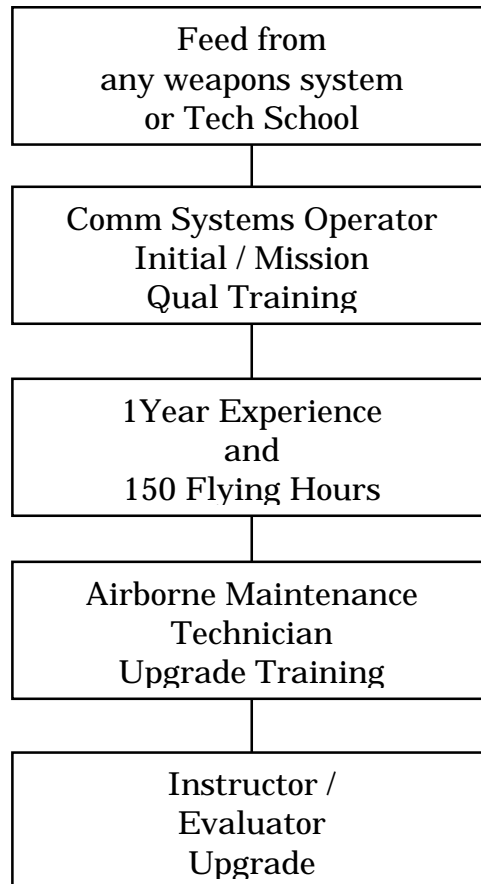
Figure 3

Special Operations / Rescue
MC-130E/P & HC-130P Training Path

```
                    +---------------------------+
                    |        Feed from          |
                    |    any weapons system     |
                    |      or Tech School       |
                    +---------------------------+
                     /                         \
    +---------------------------+    +---------------------------+
    |   Mission Qual Course     |    |   Mission Qual Course     |
    |    Hurlburt Field FL      |    |     Kirtland AFB NM       |
    |        52 Days            |    |        90 Days            |
    +---------------------------+    +---------------------------+
                     \                         /
                    +---------------------------+
                    |         In-Unit           |
                    |      Indoctrination       |
                    +---------------------------+
                                 |
                    +---------------------------+
                    |    Advanced Training *     |
                    |            As             |
                    |         Required          |
                    +---------------------------+
                                 |
                    +---------------------------+
                    |        Instructor/        |
                    |         Evaluator         |
                    |          Upgrade          |
                    +---------------------------+
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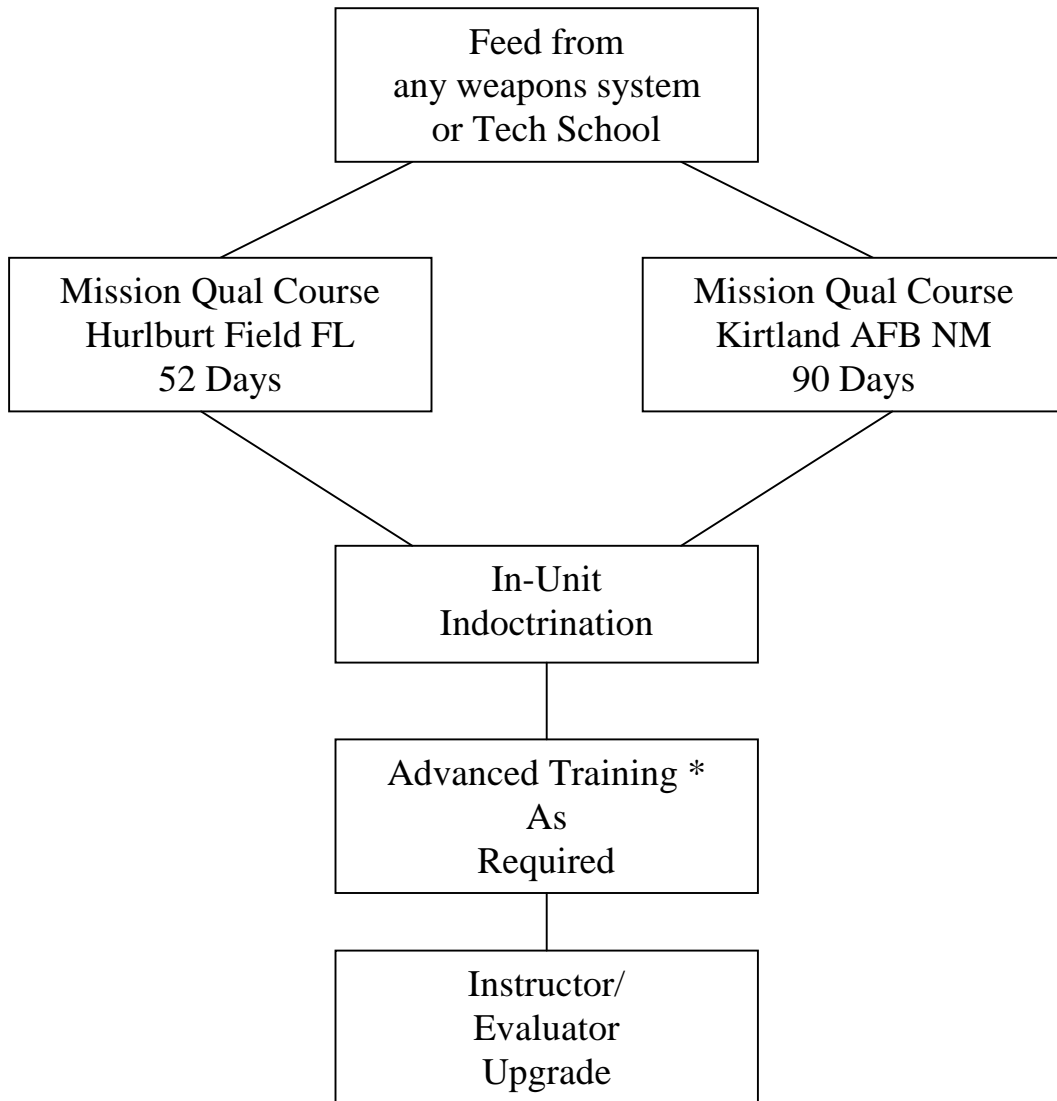
* Advanced Training
1. Special Mission Qualification
2. Command & Control Suite

Figure 4

E-4B (NAOC) Training Path

Feed from any weapons system or Technical School

TS/SCI Security Clearance

Semi-Automatic Switching System Operator

Technical Control Operator –1 Training (120 Days)

Technical Control Operator –2 Training (120 Days)

Radio Operator Training (120 Days)

Data Operator Training (180 Days)

Radio Maintenance Technician –2 Training (120 Days)

Radio Maintenance Technician –1 Training (120 Days)

Wire Operator Training (120 days)

Instructor / Evaluator Upgrade

Figure 5

E-3 (AWACS) Training Path

Feed from
any weapons system
or Tech School

Initial Qual Training
Tinker AFB OK
(3.5 Months)

| Tinker | Elmendorf | Kadena |

Mission Qual
Training

Mission Ready

Instructor
Upgrade

Evaluator
Upgrade

NATO
AWAC

| Operator Course | Technician Course |

Combat Readiness
Training

Instructor /
Evaluator
Upgrade
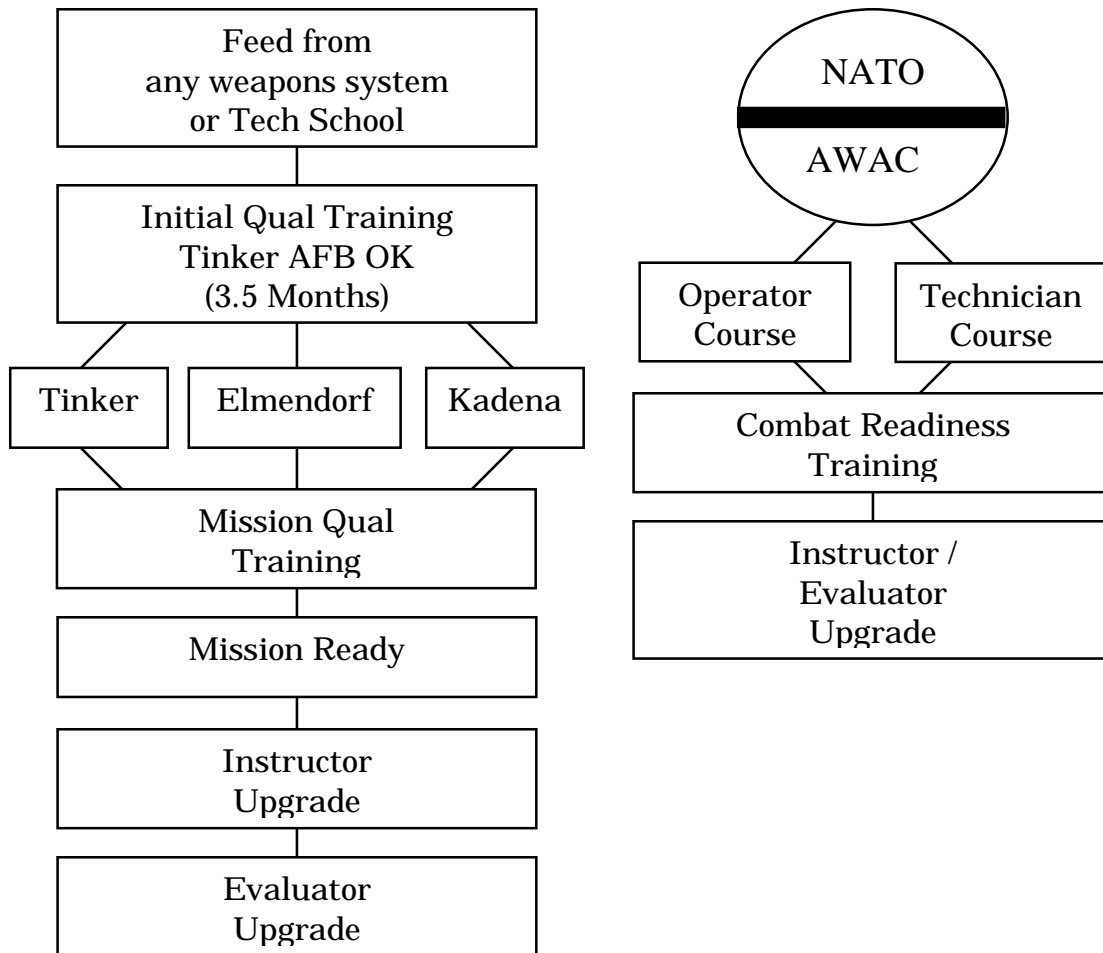
Figure 6

Special Air Mission (SAM) Training Path

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                    ┌──────────────────────────────┐
                    │   Special Duty Assignment     │
                    │   Minimum Grade SSgt          │
                    └──────────────────────────────┘
                        /                      \
              ┌──────────────┐          ┌──────────────┐
              │    1 ALS     │          │   99 ALS     │
              └──────────────┘          └──────────────┘
              ┌──────────────┐          ┌──────────────┐
              │   CSO-2      │          │    CSO       │
              │ C-137 / C-32 │          │   C-20B      │
              │ (6 Months)   │          │ (3 Months)   │
              └──────────────┘          └──────────────┘
                                          /          \
              ┌──────────────┐   ┌──────────────┐ ┌──────────────┐
              │   CSO-1      │   │    CSO       │ │    CSO       │
              │ C-137 / C-32 │   │    C -9      │ │   C-20H      │
              │ (12 Months)  │   │ (6 Months)   │ │ (3 Months)   │
              └──────────────┘   └──────────────┘ └──────────────┘
              ┌──────────────┐     ┌──────────────┐
              │ Instructor / │     │ Instructor / │
              │ Evaluator    │     │ Evaluator    │
              │ Upgrade      │     │ Upgrade      │
              └──────────────┘     └──────────────┘
                        \              /
                    ┌──────────────────────┐
                    │   Air Force One       │
                    │   VC-25               │
                    └──────────────────────┘
                    ┌──────────────────────┐
                    │   CSO-2               │
                    │   (6 Months)          │
                    └──────────────────────┘
                    ┌──────────────────────┐
                    │   CSO-1               │
                    │   (6 Months)          │
                    └──────────────────────┘
                    ┌──────────────────────┐
                    │   Instructor /        │
                    │   Evaluator           │
                    │   Upgrade             │
                    └──────────────────────┘
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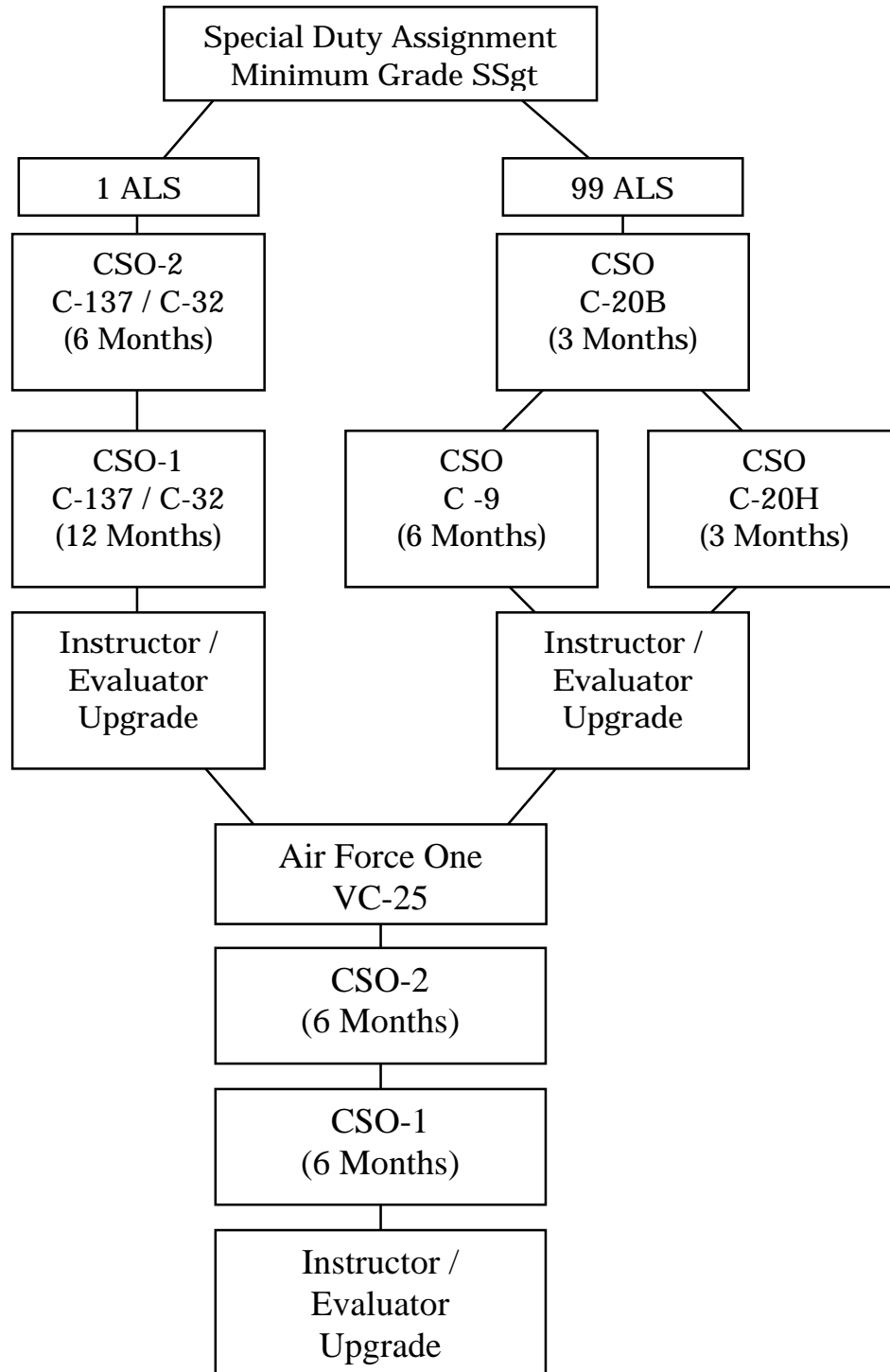
Figure 7

E-8 (Joint STARS) Training Path

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┌─────────────────────────────┐
│          Feed from          │
│      any weapon system      │
│        or Tech School       │
└─────────────────────────────┘
              │
┌─────────────────────────────┐
│     Initial Qual Training    │
│        Course E8CST          │
│         (3 Months)           │
└─────────────────────────────┘
              │
┌─────────────────────────────┐
│        Mission Qual          │
│          Training            │
└─────────────────────────────┘
              │
┌─────────────────────────────┐
│        Instructor /          │
│         Evaluator            │
│          Upgrade             │
└─────────────────────────────┘
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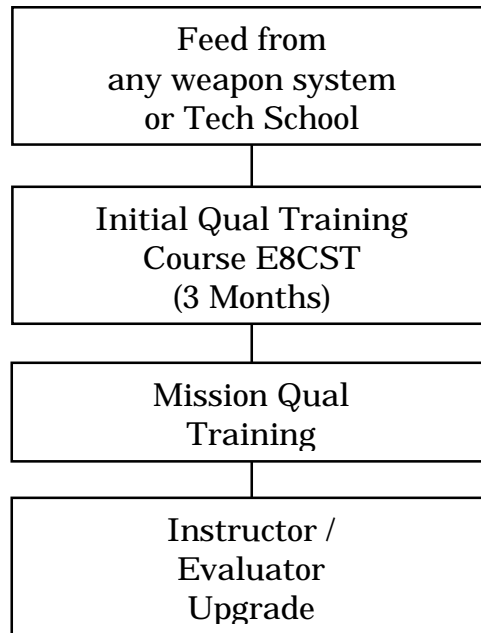
Figure 8

1A3X1 Assignment Locations

Location	CMS	SMS	MSG	TSG	SSG	SRA	A1C	Student
Anacostia MD			x					
Andrews AFB MD	x	x	x	x	x			
Arlington VA			x					
Chievres BE				x	x	x		
Davis-Monthan AFB AZ	x		x	x	x	x	x	x
Edwards AFB CA			x	x				
Eglin AFB FL			x	x	x	x	x	
Elmendorf AFB AK		x	x	x	x	x		
Geilenkirchen AB GE		x	x	x	x			
Greenville, TX		x	x	x				
Hickam AFB HI			x		x			
Hurlburt Field FL	x	x	x	x	x			
Kadena AB JA			x	x	x			
Keesler AFB MS			x		x	x		
Kelly AFB TX	x	x	x					
Kirtland AFB NM			x	x	x	x		
Langley AFB VA	x		x					
MacDill AFB FL			x	x	x			
Melbourne, FL				x	x			
Moody AFB GA	x		x	x	x	x		
Offutt AFB NE	x	x	x	x	x	x	x	
RAF Mildenhall	x	x	x	x	x	x	x	
Ramstein AB GE		x	x	x	x	x		
Randolph AFB TX	x		x					
Robins AFB GA	x	x	x	x	x	x	x	x
Scott AFB IL		x		x				
Seattle, WA			x	x				
Shape, Belgium				x				
Shaw AFB SC			x					
Sheppard AFB TX			x					
Tinker AFB OK	x	x	x	x	x	x	x	x

Figure 9

NOTE: The authorizations listed above are subject to change without notice. Crewmembers interested in assignments to locations listed should consult their MAJCOM functional manager or the AFPC resource manager for more detailed information about requirement for a specific location.

Section C - *Skill Level Training Requirements*

9. Purpose. Skill level training requirements in this career field are defined in terms of tasks and knowledge requirements. This section outlines the specialty qualification requirements for each skill level in broad, general terms and establishes the mandatory requirements for entry, award, and retention of each skill level. The specific task and knowledge training requirements are identified in the STS at Part II, Sections A and B of this CFETP.

10. Specialty Qualifications:

10.1. **Apprentice Level Training:**

10.1.1. **Specialty Qualifications**.

10.1.1.1. **Knowledge**. Knowledge is mandatory of: electronics and radio theory including solid state components, digital techniques, and computer principles applied to airborne voice and data communications systems; digital data processing; general purpose computers and interface units; interpreting technical orders, schematics, and wiring diagrams; and worldwide communications, direction-finding, multiplex, data and voice procedures.

10.1.1.2. **Education**. For entry into this specialty, completion of high school with courses in typing, speech, and English is desirable.

10.1.1.3. **Training**. For award of AFSC 1A331, completion of a basic Airborne Communications And Electronics Specialty course is mandatory.

10.1.1.4. **Other**. The following are mandatory as indicated:

10.1.1.4.1. For entry into this specialty, normal color vision as defined in AFI 48-123, *Medical Examination and Standard*.

10.1.1.4.2. For entry, award, and retention of these AFSCs:

10.1.1.4.2.1. Physical qualification for aircrew duty according to AFI 48-123, *Medical Examination and Standard*.

10.1.1.4.2.2. Qualification for aviation service according to AFI 11-402, *Aviation and Parachutist Service, Aeronautical Ratings and Badges*.

10.1.1.4.3. For entry, award, and retention of AFSCs 1A311/31/51/71, physical qualification for voice communications operations.

10.1.1.4.4. For award and retention of AFSCs 1A331/51/71/91/00, eligibility for a Top Secret security clearance according to AFI 31-501, *Personnel Security Management Program*.

10.1.2. **Training Sources and Resources**. Completion of the Airborne Communications and Electronics Specialty course at Keesler AFB, MS satisfies the knowledge and training requirements specified in the specialty qualification section (above) for award of the 3-skill level. Completion of the Enlisted Aircrew Undergraduate Course at Sheppard AFB, TX (active duty only) is mandatory for non-prior service students and retrainees. Completion of Combat Survival Training Course (S-V80) and Water Survival Non-parachuting (S-V90) is mandatory for all 1A3X1 personnel. The initial skills courses are focused to increase "hands-on" time with task performance as the learning foundation.

10.1.3. **Implementation**. Entry into training is accomplished by approved retraining from any AFSC or initial accessions. Airmen are assigned to the training center for completion of the 3-level

course. Airborne Communications And Electronics Specialty course is mandatory for the award of the 3-skill level.

10.2. **Journeyman Level Training:**

10.2.1. **Specialty Qualifications**.

10.2.1.1 **Knowledge**. In addition to knowledge required for the 3-level and other qualifications as listed above, an individual must possess the knowledge and skills necessary to operate and maintain Airborne Communications And Electronics Specialty systems. Completion of qualification criteria in current assigned aircraft is mandatory.

10.2.1.2. **Education**. To assume the rank of SSgt, individuals must be a graduate of the Airman Leadership School (ALS).

10.2.1.3. **Training**. Completion of 1A351 CDCs is mandatory for award of the journeyman AFSC.

10.2.1.4. **Experience**. Qualification in and possession of AFSC 1A331. Also, experience operating and maintaining aircraft communications equipment and computer systems.

10.2.1.5. **Other**. See paragraph 10.1.1.4.

10.2.2. **Training Sources and Resources**. Completion of 1A351 CDC, Airborne Communications And Electronics Specialty Journeyman, satisfies the knowledge and training requirements specified in the specialty qualification section (above) for award of the 5-skill level.

10.2.3. **Implementation**. Entry into OJT is accomplished after 3 months of on the job experience at first duty location.

10.3. **Craftsman Level Training:**

10.3.1. **Specialty Qualifications**.

10.3.1.1. **Knowledge**. In addition to knowledge required for the 5-skill level and other qualifications as listed above, an individual must possess the knowledge and skills necessary to supervise personnel, and operate and maintain Airborne Communications And Electronics Specialty systems.

10.3.1.2. **Education**. To assume the ranks of SSgt and MSgt, individuals must be graduates of the Airman Leadership School (ALS) and NCO Academy, respectively.

10.3.1.3. **Training**. Completion of 1A351 CDCs (or holds a 5-skill level in the AFSC) and 18 months OJT (12 months for retrainees) is required.

10.3.1.4. **Experience**. Qualification in and possession of AFSC 1A351. Also, experience and qualification in advanced operations and maintenance of aircraft communications and computer systems.

10.3.1.5. **Other**. See paragraph 10.1.1.4.

10.3.2. **Training Sources and Resources**. The STS identifies all tasks required for qualification. Upgrade and qualification training are provided by qualified trainers using available QTPs written for the duty position, program to be managed, or equipment to be used. QTPs are Air Force publications and are mandatory for use when available for a duty position, program, or piece of equipment. They are obtained through normal publication channels in accordance with the procedures in AFIND 8. Procedures for requesting development of QTPs to support training is contained in AFIND 8. A list of training courses and QTPs is at Part II, Sections A and B, respectively, of this CFETP.

10.3.3. **Implementation**. Entry into OJT may be initiated when an individual is selected for promotion to SSgt.

10.4. **Superintendent Level Training**:

10.4.1. **Specialty Qualifications**.

10.4.1.1. **Knowledge**. In addition to knowledge required for the 7-skill level qualification, an individual must possess advanced skills and knowledge of concepts and principles in the effective management of Airborne Communications And Electronics Specialty systems.

10.4.1.2. **Education**. Complete the USAF Senior NCO Academy (or sister service equivalent) in-residence (active duty only) for award of the 9-skill level. Completion of a Community College of the Air Force (CCAF) Associate of Applied Science (A.A.S.) degree in this field is desirable.

10.4.1.3. **Training**. Graduation from the SNCOA, or equivalent, and the rank of SMSgt is mandatory for award of the 9-skill level AFSC, 1A391 (active duty only).

10.4.1.4. **Experience**. Qualification in and possession of AFSC 1A371. Also, experience managing advanced operations and maintenance of aircraft communications and computer systems.

10.4.1.5. **Other**. See paragraph 10.1.1.4.

10.4.2. **Training Sources and Resources**. USAF Senior NCO Academy (or sister service equivalent).

10.4.3. **Implementation**. Individual attains the rank of SMSgt and completes SNCOA or equivalent.

Section D - Resource Constraints

11. Purpose. This section identifies known resource constraints that preclude optimal/desired training from being developed or conducted, including information such as cost and manpower. Narrative explanations of each resource constraint and an impact statement describing what effect each constraint has on training are included. Also included in this section are actions required, office of primary responsibility, and target completion dates. Resource constraints will be reviewed and updated at least annually.

12. Apprentice Level Training: None identified

13. Journeyman Level Training: None identified.

14. Craftsman Level Training: None identified.

Part II

Section A - Specialty Training Standard

1. **Implementation.** This STS will be used for technical training provided by AETC for classes beginning in Oct 2001.

2. **Purpose.** As prescribed in AFI 36-2201, this STS:

2.1. Lists in column 1 (Task, Knowledge, and Technical Reference) the most common tasks, knowledge, and technical references (TR) necessary for airmen to perform duties at the 3-, 5-, and 7- skill level AFSC in the Airborne Communications And Electronics Specialty ladder of the Aircrew Operations Career Field. These are based on an analysis of the duties listed in AFMAN 36-2108. *Items in column 1 with an asterisk (*) are the tasks/knowledge items that are trained in the resident wartime course.* Column 2 (Core Tasks) identifies, by asterisk (*), specialty-wide training requirements. NOTE: Core task is minimum qualification training required for upgrade to the 5- skill level, but only pertain to or are a function of the work center assigned.

2.2. Shows formal training and correspondence course requirements. Column 3 shows the proficiency to be demonstrated on the job by the graduate as a result of training (in course E3ABR1A331 as described in the Education and Training Course Announcements (ETCA)) and the career knowledge provided by the correspondence course. There is no advanced course. See ECI/AFSC/CDC listing maintained by the unit OJT manager for current CDC listings.

2.3. Provides certification for OJT. Column 4 is used to record completion of task and knowledge training requirements. Certification is accomplished as outlined in AFI 36-2201.

2.4. **Qualitative Requirements.** Attachment 1 contains the proficiency code key used to indicate the level of training and knowledge provided by resident training and career development courses.

2.5. Becomes a job qualification standard for on-the-job training and used according to AFI 36-2201. For OJT, the tasks in column 1 are trained and qualified to the go/no go level. Go means the individual can perform the task without assistance and meets local requirements for accuracy, timeliness, and correct use of procedures.

2.6. Is a guide for development of promotion tests used in the Weighted Airmen Promotion System (WAPS). Specialty Knowledge Tests (SKTs) are developed at the USAF Occupational Measurement Squadron by senior NCOs with extensive practical experience in their career fields. The tests sample knowledge of STS subject matter areas judged by test development team members to be most appropriate for promotion to higher grades. Questions are based on study references listed in the WAPS study catalog. Individual responsibilities are in AFI 36-2605.

3. **Recommendations**. Report unsatisfactory performance of individual course graduates, to 81 TRG/TTS, 825 Hercules St, Ste 102, Keesler AFB MS 39534-2038. Reference specific STS paragraphs. The training group provides a 24-hour customer service line (CSIL) for supervisors to contact the technical training school with any concern they have about a graduate currently assigned to them. The CSIL number for 81 TRG/TGET (training evaluations) is DSN 597-4566; e-mail is 81trg-tget@keesler.af.mil; FAX is DSN 597-3790.

BY ORDER OF THE SECRETARY OF THE AIR FORCE
OFFICIAL

Attachments
Qualitative Requirements

STS 1A3X1

THIS BLOCK FOR IDENTIFICATION PURPOSES ONLY		
NAME OF TRAINEE		
PRINTED NAME *(Last, First Middle Initial)*	INITIALS *(Written)*	SSAN
PRINTED NAME OF CERTIFYING OFFICIAL AND WRITTEN INITIALS		
N/I	N/I	
N/I	N/I	
N/I	N/I	
N/I	N/I	
N/I	N/I	
N/I	N/I	

QUALITATIVE REQUIREMENTS

PROFICIENCY CODE KEY		
	SCALE VALUE	DEFINITION: The Individual
TASK PERFORMANCE LEVELS	1	Can do simple parts of the task. Needs to be told or shown how to do most of the task. (EXTREMELY LIMITED)
	2	Can do most parts of the task. Needs help only on hardest parts. (PARTIALLY PROFICIENT)
	3	Can do all parts of the task. Needs only a spot check of completed work. (COMPETENT)
	4	Can do the complete task quickly and accurately. Can tell or show others how to do the task. (HIGHLY PROFICIENT)
*TASK KNOWLEDGE LEVELS	a	Can name parts, tools, and simple facts about the task. (NOMENCLATURE)
	b	Can determine step by step procedures for doing the task. (PROCEDURES)
	c	Can identify why and when the task must be done and why each step is needed. (OPERATING PRINCIPLES)
	d	Can predict, isolate, and resolve problems about the task. (ADVANCED THEORY)
**SUBJECT KNOWLEDGE LEVELS	A	Can identify basic facts and terms about the subject. (FACTS)
	B	Can identify relationship of basic facts and state general principles about the subject. (PRINCIPLES)
	C	Can analyze facts and principles and draw conclusions about the subject. (ANALYSIS)
	D	Can evaluate conditions and make proper decisions about the subject. (EVALUATION)

EXPLANATIONS

* A task knowledge scale value may be used alone or with a task performance scale value to define a level of knowledge for a specific task. (Examples: b and 1b)

** A subject knowledge scale value is used alone to define a level of knowledge for a subject not directly related to any specific task, or for a subject common to several tasks.

- This mark is used alone instead of a scale value to show that no proficiency training is provided in the course or CDC.

x This mark is used alone in course columns to show that training is required but not given due to limitations in resources.

Attachment 1

Users are responsible for annotating training references (TR) to identify current references pending STS revision

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3 Skill Level		B 5 Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certifier's Initials	Trainee's Initials
1. SECURITY TR: AFIs 31-201, 10-1110, 131-101, 33-208, and 33-211										
* 1.1. Communications Security (COMSEC)	*									
1.1.1. Maintain cryptological materials TR: AFKAG-1										
1.1.1.1. Documentation		2b			B					
1.1.1.2. Storage		2b			B					
1.1.1.3. Handling		2b			B					
1.1.1.4. Protection		2b			B					
1.1.2. Perform destruction procedures		2b			B					
1.1.3. Select mode of transmission dictated by security and expediency required		-			-					
1.1.4. Security precautions involved in communications		A			B					
1.1.5. Apply security procedures in the operation of on-line crypto devices		-			-					
1.1.6. Prepare COMSEC kits		2b			-					
1.1.7. Two Person Integrity (TPI)		A			B					
1.2. Protect Classified Information TR: DOD 5200.1R	*	2b			B					
1.3. Operations Security (OPSEC) TR: AFI 10-1101										
1.3.1. History of OPSEC		-			-					
1.3.2. Definition of OPSEC		-			-					
1.3.3. Relationship of OPSEC security programs including COMSEC information security and physical security		-			-					
1.3.4. Common OPSEC vulnerabilities		-			-					
1.3.5. OPSEC significance of unclassified data		-			-					
1.3.6. OPSEC indicators pertaining to Air Ops	*	A			B					
1.3.7. Information Warfare		-			A					
2. AIR FORCE OCCUPATIONAL SAFETY AND HEALTH (AFOSH) PROGRAM TR: AFI 191-301; AFOSHSTD 161-17										
2.1. Hazards of AFSC 1A3X1		A			B					

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3 Skill Level		B 5 Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certifier's Initials	Trainee's Initials
2.2. AFOSH Standards of AFSC 1A3X1		A			A					
2.3. Maintain Safe Work Area		2b			B					
2.4. Use Safety Practices When Working With: TR: T.O. 31-1-141-1, 00-25-234										
2.4.1. Electrical systems		2b			B					
2.4.2. Hydraulic systems		a			B					
2.4.3. Radio frequency (RF) radiation		2b			B					
2.4.4. Test Equipment		2b			B					
2.4.5. Portable fire extinguishers		b			B					
2.4.6. Hand tools		2b			B					
2.4.7. Electronic equipment		2b			B					
2.5. Foreign Object Damage (FOD)		A			B					
3. SUPERVISION										
3.1. Personnel Management										
3.1.1. Orient new personnel TR: CFETP 1A3X1		-			-					
3.1.2. Assign personnel to work crews TR: AFI 21-101		-			-					
3.1.3. Plan work assignments TR: AFI 21-101		-			-					
3.1.4. Evaluate subordinates work performance TR: AFI 36-2403		-			-					
3.1.5. Resolve subordinate technical problems TR: AFI 21-101		-			-					
3.1.6. Counsel personnel		-			-					
3.1.7. Initiate action to correct substandard performance by personnel TR: AFIs 36-2907 and 36-2503		-			-					
3.2. Maintain Administrative Records TR: AFI 37-138		-			-					
4. TRAINING TR: AFI 36-2201										
4.1. Evaluate Personnel to Determine Training		-			-					
4.2. Recommend Personnel for Training TR: AFIs 11-206, 11-401, 36-2101, AFCAT 36-2223, and AFMAN 36-2108		-			-					

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3 Skill Level		B 5 Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certifier's Initials	Trainee's Initials
4.3. OJT										
4.3.1. Conduct training		-			-					
4.3.2. Counsel trainees on their progress		-			-					
4.3.3. Monitor effectiveness of training										
4.3.3.1. Career Knowledge upgrade		-			-					
4.3.3.2. Job proficiency upgrade		-			-					
4.3.3.3. Qualification		-			-					
4.4. Maintain Training Records		-			-					
4.5. Evaluate Effectiveness of Training Programs		-			-					
4.6. Aircrew Standardization/Evaluation Program TR: AFI 11-202		A			B					
5. COMMUNICATIONS AGENCIES										
5.1. Communications Agencies										
5.1.1. Federal Communications Commission TR: DOD Directive 4650-1		A			B					
5.1.2. Federal Aviation Administration (FAA) TR: AFI 13-203 and FAAH 7110.65		A			B					
5.1.3. Defense Information Systems Agency TR: DISA Circular 640-45-21		-			A					
5.1.4. Defense Communications Systems (DCS) TR: DISA Circular 640-45-21		-			A					
5.1.5. International Civil Aviation Organization TR: Flight Information Handbook		A			B					
5.1.6. Air Traffic Control TR: AFI 13-203 and FAAH 7110.65		A			B					
5.2. Communications Networks										
5.2.1. Aeronautical Radio Incorporated (ARINC) TR: Flight Information Handbook (FIH), Enroute Supplements		A			B					
5.2.2. Mystic Star TR: DISA Circular 310-70-79		A			B					
5.2.3. USAF Global HF System TR: FIH		A			B					
5.2.4. Canadian Military Aeronautical Communications Systems (MACES) TR: Canadian Enroute Supplements		A			A					
5.2.5. Global Command & Control System (GCCS)		-			A					

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3 Skill Level		B 5 Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certifier's Initials	Trainee's Initials
5.3. Functions / Capabilities of Airborne Comm Systems										
5.3.1. National Airborne Operations Center (NAOC)		A			A					
5.3.2. Joint Surveillance Target Attack Radar System (Joint STARS)		A			A					
5.3.3. Airborne Warning and Control System (AWACS) TR: AFI 11-2E 3/TC 18 v3, T.O. 1E-3-43-1-1		A			A					
5.3.4EC-130		A			A					
5.3.5. Combat Rescue TR: AFI 11-2HC-130 v3		A			A					
5.3.6. Special Air Missions (SAM) TR: AMCI 11-2SAM v1		A			A					
5.3.7. Special Operations TR: AFSOCI 11-2MC		A			A					
5.3.8. Air Reserve Component		A			A					
5.3.9. RC-135		A			A					
5.3.10. Open Skies		A			A					
5.3.11 Operational Support Airlift		A			A					
6. AIRBORNE COMMUNICATIONS PUBS										
6.1. Communications Act Concerning: TR: ACPs 121/US Sup 2, 125, AFI 33-118, and AFMAN 33-120										
6.1.1. False or fraudulent distress signals		A			B					
6.1.2. Transmission of obscene language		A			B					
6.1.3. Frequency control		A			B					
6.1.4. Operating power		A			B					
6.2. Purpose of:										
6.2.1. Air Force Standard publications TR: AFIs 11-401, -408 and -215		A			B					
6.2.2. ACPs and JANAPs TR: JANAP 201		A			B					
6.2.3. DISA publications TR: DISAN 210-10-1		-			A					
* 6.2.4. Technical orders TR: T.O. 00-5-1, 00-5-2, and AFI 11-215	*									

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3 Skill Level		B 5 Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certifier's Initials	Trainee's Initials
6.2.4.1. Air Force Technical Order System TRs: AFPD 21-3 and T.O. 00-5-1		A			B					
6.2.4.2. Use Technical Orders when										
6.2.4.2.1. Maintaining aircraft installed systems		2b			-					
6.2.4.2.2. Operating aircraft installed systems		2b			-					
6.2.4.3. Use standard publications TR: AFIs and MAJCOM Instructions		2b			-					
6.2.4.4. Technical publication deficiencies report		A			B					
6.2.4.5. Aircrew publications system		A			B					
6.2.4.6. Maintain personal aircrew pubs TR: AFI 37-160 v7		2b			B					
6.2.4.7. Aircrew publication deficiencies report		A			B					
* 6.2.5. Cryptological documents TR: AFI 33-211	*	A			B					
* 6.2.6. Notices to Airmen (NOTAM) TR: AFJI 11-208	*	A			B					
* 6.2.7. Flight Information Publication (FLIPS) TR: Flight Information Publication (General planning), Flight Information Handbook, Enroute supplements, and Enroute charts	*	A			B					
6.2.8. Execution checklists TR: AFSOCI 11-2MC		-			A					
* 6.2.9. Air Tasking Orders (ATO) TR: AFP 101-2, Volume I	*	A			A					
* 6.2.10. Operations order (OPORD) TR: AFI 10-401	*	A			A					
* 6.2.11. OPTASKLINK TR: JCS Pub 3-56.23	*	A			A					
7. AIRCREW RESPONSIBILITIES TR: AFIs 11-401 and 402										
7.1. Crew Rest/Crew Duty Limitations		-			A					
7.2. Aircrew Training Currency		-			A					
7.3. Flight Physical Requirements		-			A					
7.4. Physiological Training Requirements		-			A					
7.5. Flight Clothing Requirements		-			-					
7.6. Flight Records		-			A					

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3 Skill Level		B 5 Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certifier's Initials	Trainee's Initials
7.7. Flight Management TR: AFIs 11-401, 402, 412, 11-202 v3, AFI 38-201										
7.7.1. Aeronautical orders		-			A					
7.7.2. Aviation service codes		-			A					
7.7.3. Disqualification from aviation service										
7.7.3.1. Voluntary		-			A					
7.7.3.2. Humanitarian		-			A					
7.7.3.3. Aircrew Evaluation Board (AEB)		-			A					
7.7.3.4. Medical										
7.7.3.4.1. Temporary		-			A					
7.7.3.4.2. Permanent		-			A					
7.7.4. Removal of AFSC		-			A					
7.7.5. Aviation service badges TR: AFI 11-402		-			A					
7.8. Security Clearance TR: AFI 31-401										
7.8.1. Governing instructions		-			A					
7.8.2. Suspension of clearance (adjudication)		-			A					
7.8.3. Sensitive Compartmental Information (SCI) billets		-			A					
7.8.4. Personal Reliability Program (PRP) Requirements TR: AFI 36-2104		-			-					
7.9. Aircrew Complement/Ratio TR: AFI 65-503										
7.9.1. Document familiarization		-			A					
7.9.2. Manpower Office TR. AFI 38-201		-			A					
7.9.3. Primary Mission Assigned Inventory (PMAI)		-			A					
7.9.4. Backup Aircraft Inventory (BAI)		-			A					
7.9.5. Unit Manning Document (UMD)		-			A					
7.9.6. Authorization Change Request (ACR)		-			A					
7.9.7. Unit Personnel Management Roster (UMPR)		-			A					

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided				4. CERTIFICATION OF OJT			
		A 3 Skill Level		B 5 Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certifier's Initials	Trainee's Initials
7.10 Career Enlisted Aviator Program		A			B					
7.11 TR: DOD 7000.14-R										
7.11. Trained Personnel Requirements (TPR) TR:					A					
7.12. Programmed Flying Training (PFT) TR		-			A					
7.13. Acquisition/Modification Programs TR: AFI 10-601, 23-101					A					
7.14. Joint Federal Travel Regulation (JFTR) TR: JFTR										
7.14.1. Familiarization		-			-					
7.14.2. Individual TDY cost planning		-			A					
7.15. Aircrew Managers TR: AFMAN 36-2245										
7.15.1. Career Field		-			A					
7.15.2. Functional		-			A					
7.15.3. Utilization		-			A					
8. PERFORM AIRCREW DUTIES TR: AFI 11-401 and Applicable T.O.s										
8.1. Pre-mission		2b			-					
8.2. Pre-flight										
8.2.1. Communications equipment		2b			-					
8.2.2. Aircraft systems		2b			-					
8.3. In-flight										
8.3.1. Communications equipment		2b			-					
8.3.2. Aircraft systems		2b			-					
8.3.3. Emergency procedures		-			-					
8.3.4. Crew Resource Management (CRM)										
8.3.4.1. Crew coordination		2b			A					
8.3.4.2. Situation awareness		-			A					
TR: Applicable MAJCOM Instructions										
8.4. Postflight										
8.4.1. Communications equipment		2b			-					

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3 Skill Level		B 5 Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certifier's Initials	Trainee's Initials
8.4.2. Aircraft systems		2b			-					
8.4.3. Debrief		2b			-					
8.4.4. Aircraft Marshaling TR: AFI 11-218		-			A					
8.4.5. Ground Support Equipment										
8.4.5.1. Powered		-			A					
8.4.5.2. Non-powered		-			A					
8.4.6. Aircrew Chemical Defense Environment		-			-					
8.5. Operational Risk Management (ORM)		A			A					
9. AIRBORNE SYSTEMS OPERATIONS AND MAINTENANCE TRs: Applicable T.O.s										
9.1. General Requirements TR: T.O.s 1-1A-14, 00-25-234										
9.1.1. Inspect bonding straps		1a			-					
9.1.2. Repair multi-pin connectors		-			A					
9.1.3. Repair coaxial connectors		-			A					
* 9.1.4. Use aircraft wiring and cabling diagrams	*	2b			B					
* 9.1.5. Use appropriate hand tools	*	2b			-					
9.1.6. Reconfigure aircraft equipment		-			-					
* 9.1.7. Maintain system integrity	*									
9.1.7.1. Electromagnetic Interference (EMI)		A			B					
9.1.7.2. Electromagnetic Compatibility (EMC) TR: MIL-E-6051D		A			B					
9.1.7.3. Nuclear hardness of installed equipment TR: T.O. 1-1-689		A			B					
9.1.7.4. Nuclear effects on communications		A			B					
9.1.7.5. TEMPEST TR: NACESIM 5000		A			A					
* 9.1.8. Use aircraft maintenance forms (AFTO 781 series) TR: TO 00-20-5	*	2b			B					
9.1.9. Core Automated Maintenance System (CAMS)		A			B					
9.2. UHF Systems										

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3 Skill Level		B 5 Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certifier's Initials	Trainee's Initials
* 9.2.1. Theory of operation	*	B			B					
* 9.2.2. Block diagram analysis	*	B			B					
* 9.2.3. Operate	*	2b			-					
* 9.2.4. Isolate malfunctions	*	2b			-					
9.3. VHF Systems										
* 9.3.1. Theory of operation	*	B			B					
* 9.3.2. Block diagram analysis	*	B			B					
9.3.3. Operate		-			-					
9.3.4. Isolate malfunctions		-			-					
9.4. HF Systems										
* 9.4.1. Theory of operation	*	B			B					
* 9.4.2. Block diagram analysis	*	B			B					
* 9.4.3. Operate	*	2b			-					
* 9.4.4. Isolate malfunctions	*	2b			-					
9.5. Audio Distribution Systems (Interphone System)										
9.5.1. Analog										
* 9.5.1.1. Theory of operation	*	B			B					
9.5.1.2. Block diagram analysis		B			B					
9.5.1.3. Operate		-			-					
9.5.1.4. Isolate malfunctions		-			-					
9.5.2. Digital										
* 9.5.2.1. Theory of operation	*	B			B					
* 9.5.2.2. Block diagram analysis	*	B			B					
* 9.5.2.3. Operate	*	2b			-					
* 9.5.2.4. Isolate malfunctions	*	2b			-					
9.6. Emergency Recorder/Locator System										
9.6.1. Theory of operation		B			B					
9.6.2. Block diagram analysis		-			B					
9.6.3. Operate		-			-					
9.6.4. Isolate malfunctions		-			-					

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3 Skill Level		B 5 Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certifier's Initials	Trainee's Initials
9.7. Anti-Jam Systems TR: Have Quick Users / SINCGARS Handbooks										
* 9.7.1. Theory of operation	*	B			B					
* 9.7.2. Block diagram analysis	*	B			B					
* 9.7.3. Operate	*	2b			-					
9.7.4. Isolate malfunctions		-			-					
9.8. Tactical Data Link Systems TR: JCS PUB										
9.8.1. TADIL A		-			A					
* 9.8.2. Joint Tactical Information Distribution System (JTIDS) TR: PE Report No. 93006	*									
9.8.2.1. Theory of operation		B			B					
9.8.2.2. Block diagram analysis		B			B					
9.8.2.3. Operate		-			-					
9.8.2.4. Isolate malfunctions		-			-					
* 9.9. Military Satellite Communications Systems/DAMA	*									
9.9.1. Overall architecture		A			B					
9.9.2. Theory of operation		A			B					
9.9.3. Block diagram analysis		-			B					
9.9.4. Operate		-			-					
9.9.5. Isolate malfunctions		-			-					
9.10. Commercial SATCOM										
9.10.1. Theory of Operation		A			A					
9.10.2. Architecture		-			A					
9.10.3. Operate		-			-					
9.10.4. Isolate malfunctions		-			-					
* 9.11. Switching Systems	*									
9.11.1. Theory of operation		B			B					
9.11.2. Operate		2b			-					
9.12. Cryptologic Systems TR: Appropriate KAO's and FSVS-210 (STU III)										

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1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3 Skill Level		B 5 Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certifier's Initials	Trainee's Initials
9.12.1. Voice										
9.12.1.1. Wide-Band Secure Systems										
* 9.12.1.1.1. Theory of operation	*	B			B					
* 9.12.1.1.2. Operate	*	2b			-					
* 9.12.1.1.3. Isolate malfunctions	*	2b			-					
9.12.1.2. Narrow-Band Secure Systems										
* 9.12.1.2.1. Theory of operation	*	B			B					
* 9.12.1.2.2. Operate	*	2b			-					
* 9.12.1.2.3. Isolate malfunctions	*	2b			-					
9.12.2. Data										
* 9.12.2.1. Theory of operation	*	B			B					
9.12.2.2. Operate		2b			-					
9.12.2.3. Isolate malfunctions		2b			-					
9.13.3. Ancillary equipment										
9.12.3.1. Off-line encryption devices		-			-					
* 9.12.3.2. Operate electronic transfer devices	*	1b			A					
* 9.12.3.3. Over-the-air rekeying equipment TR: NSAP NAG-16B/TSEC	*	A			A					
9.13. Equipment Cooling Systems										
9.13.1. Theory of operation		A			B					
9.13.2. Block diagram analysis		A			A					
9.13.3. Operate		-			-					
9.13.4. Isolate malfunctions		-			-					
9.14. Electrical Power Distribution										
* 9.14.1. Theory of operation	*	A			B					
* 9.14.2. Schematic Diagram Analysis	*	A			B					
9.14.3. Operate		-			-					
9.14.4. Isolate malfunctions		-			-					
9.15. Theory of Data Transfer Systems TR: MILSTD 188-161 Series		A			A					
9.16. Audio Recorders										

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3 Skill Level		B 5 Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certifier's Initials	Trainee's Initials
9.16.1. Theory of operation		-			A					
9.16.2. Block diagram analysis		-			-					
9.16.3. Operate		-			-					
9.16.4. Isolate malfunctions		-			-					
9.17. Multiplex										
9.17.1. Theory of operation		A			A					
9.17.2. Block diagram analysis		A			A					
9.17.3. Operate		-			-					
9.17.4. Isolate malfunctions		-			-					
9.18. Modems TR: MILSTD 188-110A										
* 9.18.1. Theory of operation	*	A			B					
9.18.2. Operate		-			-					
9.18.3. Military Standards (MILSTD)										
9.18.3.1. MILSTD 188B		-			-					
9.18.3.2. MILSTD 188C		-			-					
9.18.4. Isolate malfunctions		-			-					
9.19. Self Defense Systems										
9.19.1. Theory of operation		-			A					
9.19.2. Isolate malfunctions		-			-					
9.20. Radio Navigational Systems										
9.20.1. Automatic Direction Finding (ADF)										
9.20.1.1. Theory of operation		A			B					
9.20.1.2. Operate		-			-					
9.20.1.3. Isolate malfunctions		-			-					
9.20.2. VHF Omnidirectional Range/VHF Omnidirectional Range-Distance Measuring Equipment (VOR/VOR-DME)										
9.20.2.1. Theory of operation		A			B					
9.20.2.2. Operate		-			-					
9.20.2.3. Isolate malfunctions		-			-					
9.20.3. Instrument Landing System (ILS)										

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3 Skill Level		B 5 Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certifier's Initials	Trainee's Initials
9.20.3.1. Theory of operation		A			B					
9.20.3.2. Operate		-			-					
9.20.3.3. Isolate malfunctions		-			-					
9.20.4. Tactical Air Navigation (TACAN)										
9.20.4.1. Theory of operation		A			B					
9.20.4.2. Operate		-			-					
9.20.4.3. Isolates malfunctions		-			-					
9.20.5. Altimeters										
9.20.5.1. Theory of operation		A			B					
9.20.5.2. Operate		-			-					
9.20.5.3. Isolates malfunctions		-			-					
9.20.6. Global Positioning System (GPS)										
9.20.6.1. Theory of operation		A			A					
9.20.6.2. Operate		-			-					
9.20.6.3. Isolates malfunctions		-			-					
9.21. Weather Radar										
9.21.1. Theory of operation		-			A					
9.21.2. Operate		-			-					
9.21.3. Isolates malfunctions		-			-					
9.22. Flight Director/Autopilot										
9.22.1. Theory of operation		-			A					
9.22.2. Operate		-			-					
9.22.3. Isolate malfunctions		-			-					
9.23. Inertial Navigation Systems (INS)										
9.23.1. Theory of operation		A			A					
9.23.2. Perform operational checks		-			-					
9.23.3. Isolate malfunctions		-			-					
9.24. Identification Friend or Foe (IFF)/Selective Identification Feature (SIF)										
* 9.24.1. Theory of operation	*	A			B					
* 9.24.2. Operate	*	1a			-					

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1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3 Skill Level		B 5 Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certifier's Initials	Trainee's Initials
9.24.3. Isolate malfunctions		-			-					
9.25. Theory of Radio Direction Finding		A			A					
9.26. Theory of Broadcast Intelligence Systems		A			A					
9.27. Flight Management Systems										
9.27.1. Theory of operation		A			A					
9.27.2. Perform operational checks		-			-					
9.27.3. Isolate malfunctions		-			-					
9.28. Airborne Mission Computer Systems										
* 9.28.1. Hardware principles	*									
9.28.1.1. Motherboards, Central Processor Unit		A			B					
9.28.1.2. Random Access Memory/Read Only Memory		A			B					
9.28.1.3. Input/Output Interfaces		A			B					
9.28.1.4. Peripherals		A			B					
9.28.1.5. Hardware Removal and Installation		A			B					
9.28.2. Software Fundamentals										
9.28.2.1. BIOS/Kernals		A			B					
9.28.2.2. Operating Systems		A			B					
9.28.2.3. Graphical User Interfaces		A			B					
9.28.2.4. Introduction to database management		A			B					
9.28.3. Operating Systems and Applications										
9.28.3.1. Performs files and directory maintenance		2b			B					
9.28.3.2. Database management system		A			B					
9.28.4. LAN principles										
9.28.4.1. Architecture (Ring, Star, Bus)		A			B					
9.28.4.2. LAN protocol (Ethernet, TCP/IP)		A			B					
9.28.4.3. Fiber Optics		A			B					
9.29. Landline Interface Systems										
9.29.1. Theory of operation		-			A					
9.29.2. Operate		-			-					
9.29.3. Isolate malfunctions		-			-					

1.	2.	3.					4. CERTIFICATION OF OJT			
TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	Core Task	Proficiency codes used to indicate training / information provided					A	B	C	D
		A 3 Skill Level		B 5 Skill Level		C 7-Skill Level				
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certifier's Initials	Trainee's Initials
9.30. Surveillance and Control Data Link (SCDL)										
9.30.1. Theory of operation		-			A					
9.30.2. Operate		-			-					
9.30.3. Isolate malfunctions		-			-					
* 9.31 Collection Receiver System with Display	*									
9.31.1 Principles of Operation		B			B					
9.31.2 Block Diagram Analysis		B			B					
9.31.3 Operate		2b/-			B					
9.31.4 Isolate Malfunctions		2b/b			B					
10. AIRCRAFT SYSTEMS										
10.1. Engines		-			A					
10.2. Control Surfaces		-			A					
10.3. Hydraulic		-			A					
10.4. Electrical		-			A					
10.5. Pneumatic		-			A					
10.6. Fuel		-			A					
10.7. Oxygen		-			A					
* 11. WAVE THEORY TR: AFMAN 33-120 and T0 31-1-141 series	*									
11.1. Propagation										
11.1.1. Concept of radio waves		A			B					
11.1.2. Characteristics of wave travel										
11.1.2.1. Ground waves		A			B					
11.1.2.2. Sky waves		A			B					
11.1.2.3. Direct waves		A			B					
11.1.3. Frequency-wave length relationship		A			B					
11.1.4. Divisions of frequency bands		A			B					
11.2. Wave Forms										
11.2.1. Amplitude Modulation (AM)		B			B					
11.2.2. Amplitude Modulation Equivalent (AME)		B			B					
11.2.3. Continuous Wave (CW)		B			B					

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3 Skill Level		B 5 Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certifier's Initials	Trainee's Initials
11.2.4. Side-Band		B			B					
11.2.5. Frequency Shift Keying (FSK)		B			B					
11.2.6. Frequency Modulation (FM)		B			B					
11.2.7. Pulse Modulation		A			B					
11.3. Spread Spectrum Techniques										
11.3.1. Time Division Multiplexing (TDM)/Time Division Multiple Access (TDMA)		A			B					
11.3.2. Frequency Hopping		A			B					
11.3.3. Frequency Division Multiplexing (FDM)		A			B					
11.3.4. Demand Assignment Multiple Access (DAMA)		A			B					
12. TRANSMITTING AND RECEIVING SKILLS USING COMMUNICATIONS EQUIPMENT										
* 12.1. Transcribe Voice Transmissions by Hand TR: ACP 121/US Sup 2	*	2b			-					
* 12.2. Format Messages TR: ACP 121/US Sup 2, ACP 124 and 125, JANAP 128	*									
12.2.1. Plaindress		-			A					
12.2.2. Abbreviated Plaindress		2b			B					
12.2.3. Emergency Action Message (EAM)		2b			B					
12.4. Use Prescribed Procedures for: TR: ACP 121/US SUP 2, 124,125, and 131	*									
12.4.1. Operating signals		2b			B					
12.4.2. Prosigns TR: ICAO Annex 10		2b			B					
12.4.3. Handprinting techniques		2b			A					
12.4.4. Message handling TR: ACP 127 and JANAP 128		2b			B					
12.4.5. Log keeping		2b			A					
12.4.6. Phonetic alphabet TR: ICAO Annex 10, FIH		2b			A					
12.4.7. Prowords		2b			A					
12.4.8. Universal Coordinated Time (UTC) TR: FLIPs		2b			A					
12.4.9. Microphone techniques		2b			B					

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3 Skill Level		B 5 Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certifier's Initials	Trainee's Initials
12.4.10. Signal testing procedures		2b			B					
12.4.11. Calling and answering procedures		2b			B					
12.4.12. Phone patches TR: FIH		2b			B					
12.4.13. Net Control Procedures TR: ACP 125										
12.4.13.1. Voice										
12.4.13.1.1. Circuit discipline		2b			B					
12.4.13.1.2. Chattermark		2b			B					
12.4.13.1.3. Authentication		2b			B					
12.4.13.1.4. Brevity codes		2b			B					
12.4.13.2. Data										
12.4.13.2.1. Satellite		-			A					
12.4.13.2.2. Air to Air /Air to Ground		-			A					
12.4.14. Weather reports TR: FLIPs										
12.4.14.1. Copy (format)		2b			B					
12.4.14.2. Pilot Report (PIREP)		2b			A					
12.4.15. Crew interphone		2b			A					
12.4.16. Emergency communications TR: FIH		2b			B					
12.4.17. Communication Instructions for Reporting Vital Intelligence Sightings (CIRVIS) Report TR: FIH		-			A					
12.4.18. Air Traffic Control (ATC) TR FLIPs										
12.4.18.1. Clearances		2b			B					
12.4.18.2. Position reports		2b			B					
12.4.18.3. Departure/Arrival Report		2b			B					
12.5. Spectrum Interference Resolution Program (SIR/MIJI) TR: DOD Directive 3222.3, AF Sup 1 and FIH										
12.5.1. Definition		A			A					
12.5.2. Techniques		A			B					
12.5.3. Determine types of SIR/MIJI		A			B					

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3 Skill Level		B 5 Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certifier's Initials	Trainee's Initials
12.5.4. Countermeasures		A			B					
* 13. METRIC NOTATIONS TR: T.O.s 31-1-141-2, 31-1-141-5	*	-			B					
* 14. RESISTOR TR: T.O.s 31-1-141-2, 31-1-141-15	*	A			B					
* 15. RELAY AND SOLENOID TR: T.O.s 31-1-141-2, 31-1-141-3	*	A			B					
* 16. INDUCTOR TR: T.O.s 31-1-141-2, 31-1-141-15	*	A			B					
* 17. CAPACITOR TR: T.O.s 31-1-141-2, 31-1-141-5, 31-1-141-15	*	A			B					
* 18. TRANSFORMER TR: T.O.s 31-1-141-2, 31-1-141-5, 31-1-141-15	*	A			B					
* 19. SOLID STATE DIODE TR: T.O.s 31-1-141-4, 31-1-141-15	*									
19.1. Diode		A			B					
19.2. Zener Diode		-			A					
19.3. Tunnel Diode		-			A					
19.4. LED		-			A					
* 20. TRANSISTOR TR: T.O. 31-1-141-4	*	A			A					
* 21. INTEGRATED CIRCUITS FAMILIARIZATION TR: T.O. 31-1-141-4	*	A			A					
* 22. SOLDER AND DESOLDER CONNECTORS TR: T.O.s 00-25-234, 1-1A-14, and 31-1-141-15	*	2b			-					
* 23. ASSEMBLE SOLDERLESS CONNECTORS TR: T.O.s 1-1A-14 and 31-1-141-15	*									
23.1. Crimp-on Connections		2b			-					
23.2. Coaxial Connectors		2b			-					
* 24. USE TEST EQUIPMENT TR: T.O.s 31-1-141-1, 31-1-141-7, 31-1-141-8, and 31-1-141-9	*									
24.1. Analog Multimeter		2b			B					
24.2. Digital Multimeter		2b			B					
24.3. Wattmeter		1a			A					
24.4. Spectrum Analyzer		2b			A					

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3 Skill Level		B 5 Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certifier's Initials	Trainee's Initials
24.5. Oscilloscope		2b/-			B					
24.6. Built in Test Equipment/Diagnostics		1a			B					
24.7. Signal Generator		2b/-			B					
* 25. AMPLIFIER CIRCUIT TR: T.O.s 31-1-141-1, 31-1-141-4	*	A			A					
* 26. POWER SUPPLY TR: T.O.s 31-1-141-3, 31-1-141-4, 31-1-141-9, and 31-1-141-15	*	A			A					
* 27. VOLTAGE REGULATION TR: T.O.s 31-1-141-3, 31-1-141-4	*	A			A					
28. FREQUENCY SENSITIVE FILTERS TR: T.O. 31-1-141-2										
28.1. Bandpass		-			A					
28.2. Stopband		-			A					
* 29. WAVE GENERATING CIRCUITS TR: T.O.s 31-1-141-3, 31-1-141-4, 31-1-141-10	*									
29.1. Oscillators		A			A					
29.2. Multivibrators		A			A					
29.3. Waveshaping Circuits		A			A					
* 30. DIGITAL NUMBERING SYSTEMS TR: T.O. 31-1-141-5	*									
30.1. Binary		A			A					
30.2. Octal		A			A					
30.3. Hexadecimal		A			A					
31. DIGITAL LOGIC FUNCTIONS TR: TO 31-1-141-4, 31-1-141-5										
31.1. Theory of Operation										
31.1.1. Main logic gates		-			B					
31.1.2. Flip-flops		-			B					
31.2. Fault Isolation Techniques		-			B					
* 32. THEORY OF DIGITAL TO ANALOG AND ANALOG TO DIGITAL CONVERTER OPERATIONS	*	A			B					
* 33. THEORY OF TRANSMISSION LINE OPERATIONS TR: T.O.s 31-1-141-7, 31-1-141-8, 31-1-141-9, and 31-1-141-13	*	B			B					

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided				4. CERTIFICATION OF OJT			
		A 3 Skill Level		B 5 Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certifier's Initials	Trainee's Initials
* 34. THEORY OF TRANSMITTER OPERATIONS TR: T.O.s 31-1-141-4, 31-1-141-9, 31-1-141-13	*									
34.1. Amplitude Modulation (AM)		B			B					
34.2. Frequency Modulation (FM)		B			B					
34.3. Single Side Band (SSB)		B			B					
34.4. Pulse Modulation (PM)		B			B					
* 35. THEORY OF RECEIVER OPERATIONS TR: T.O.s 31-1-141-4, 31-1-141-9, 31-1-141-13	*									
35.1. Amplitude Modulation (AM)		B			B					
35.2. Frequency Modulation (FM)		B			B					
35.3. Single Side Band (SSB)		B			B					
35.4. Pulse Modulation (PM)		B			B					
35.5. Audio		B			B					
35.6. Intermediate frequency (IF)		B			B					
35.7. Video		B			B					
* 36. THEORY OF AIRCRAFT ANTENNA OPERATIONS TR: T.O. 31-1-141-12	*	B			B					
* 37. THEORY OF MICROPHONE OPERATION TR: T.O. 31-1-141-3	*	A			B					
* 38. THEORY OF SPEAKER OPERATION TR: T.O. 31-1-141-3	*	A			B					
* 39. SUPPORT SUBJECTS TR: T.O.s 31-1-141-1 and 00-25-234	*									
39.1. First Aid for Electrical Shock		A			A					
39.2. Electrostatic Discharge (ESD)		A			B					
40. REMOVE AND REPLACE LRU		2b								
40.1. Safety Wire		2b			-					
40.2. Visual Inspection		2b			-					
* 41. Electronic Warfare combat principles	*									
41.1. Electronic combat		A			B					
41.2. Electronic radiation (directed energy)		A			B					
41.3. Electronic Warfare categories		A			B					
41.4. Air defense systems		A			B					

Section B - Course Objective List

Section B - Course Objective List

4. Measurement. Each objective is indicated as follows: **W** indicates task or subject knowledge which is measured using a written test, **PC** indicates required task performance which is measured with a performance progress check, and **PC/W** indicates separate measurement of both knowledge and performance elements using a written test and a performance progress check. **P** indicates performance test only.

5. Standard. The standard is 70% on written examinations. Standards for performance measurement are indicated in the objective and delineated on the individual progress checklist. Instructor assistance is provided as needed during the progress check, and students may be required to repeat all or part of the behavior until satisfactory performance is attained.

6. Proficiency Level. Most task performance is taught to the "2b" proficiency level which means the students can do most parts of the task, but does need assistance on the hardest parts of the task (partially proficient). The student can also determine step by step procedures for doing the task.

7. Course Objective. These objectives are listed in the sequence taught by Block of Instruction.

7.1. **Initial Skills Course:**

7.1.1. **Block 1Fundamentals of the Airborne Communications and Electronics Specialty**

7.1.2. **Block 2 Electronic Fundamentals and Wave Theory**

7.1.3. **Block 3 Electronic Warfare Combat Principles**

7.1.4. **Block 4 Airborne Computer Systems Principles**

7.1.5. **Block 5 Airborne Navigation and Ancillary Systems Principles**

7.1.6. **Block 6 Analog Audio Distribution, Cooling, and Electrical Systems Principles**

7.1.7. **Block 7 Digital Audio Distribution, Baseband Switching, and Cryptographic Systems Principles**

7.1.8. **Block 8 Airborne Radio Systems Principles**

7.1.9. **Block 9 Advanced Communications Systems Principles**

7.1.10. **Block 10 Radio Operating Skills**

7.1.11. **Block 11 Airborne Maintenance Skills and Test Equipment**

7.2. **Advanced Skills Course:**

NOTE: There is currently no advanced course. This area is reserved.

Section C - Support Material

8. The following list of support materials is not all-inclusive; however, it covers the most frequently referenced areas.

NOTE: This area is reserved.

Section D - Training Course Index

9. Purpose. This section of the CFETP identifies training courses available for the specialty and shows how the courses are used by each MAJCOM in their career field training programs.

10. Air Force In-Residence Courses.

COURSE NUMBER	COURSE TITLE	LOCATION
J3AQR1A31110 001	Enlisted Aircrew Undergraduate Course	Sheppard AFB
E3ABR1A331	Airborne Communications And Electronics Specialty Apprentice Course	Keesler AFB
S-V80-A	Combat Survival Training	Fairchild AFB
S-V86-A	Water Survival Training	Pensacola NAS
S-V83-A	Special Survival	Fairchild AFB

11. Extension Course Institute (ECI) Courses.

COURSE NUMBER	COURSE TITLE
CDC 1A351	Airborne Communications And Electronics Specialty Journeyman

Section E - MAJCOM Unique Requirements

12. Air Combat Command Courses.

COURSE NUMBER	COURSE TITLE	LOCATION
ACCAIC100	ACC Academic Instructor Course	All ACC Formal Schools
E3BQACS-O	E-3 Communications Systems Operator	Tinker AFB, OK
E3BQACS-T	E-3 Communications Technician	Tinker AFB, OK
E8CST	E-8 Communications Systems Technician	Robins AFB, GA
ABCCCACS	Airborne Communications Systems Operator	Davis Monthan, AZ
E3AZR3C151-004	Milstar Command Post Terminal Operator	Fort Gordon, GA
MC130PCSOMQSO	MC130P Communications Systems Operator	Kirkland AFB, NM
MC130PCSOMQR	HC130 Communications Systems Operator	Kirkland AFB, NM
MC130PCSOSR	MC/HC130 Communications Systems Operator Simulator Refresher	
AFSOC 155000	Introduction to Special Operations (ISOC)	Hurlburt Fld, FL
MC130ECSO	Communications Specialists Combat Talon 1	Hurlburt Fld, FL
CCALL20 AMTIQ	Compass Call Airborne Maintenance Technician	Davis Monthan AFB, AZ
CCALL30 AMTIQ	Compass Call Airborne Maintenance Technician	Davis Monthan AFB, AZ
CCALL20SCANIQ	Compass Call Scanner	Davis Monthan AFB, AZ
CCALL30SCANIQ	Compass Call Scanner	Davis Monthan AFB, AZ